Efficient use of reference group cues in a single dimension*

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Abstract. If there are groups whose endorsements voters can use as positive (or negative) cues, we
 demonstrate that voters do not need to know anything directly about candidate positions to be able
to identify the candidate whose issue positions and performance is likely to be closest to the voter's
own preferences. In one dimension we show that, given certain simplifying assumptions, voters
are best off adopting the choice recommended by the single reference group to which they are
closest. We also show that even a decision by reference groups not to endorse any candidate may
be informative to voters.

1. Introduction

Inspired by Downs (1957), in this paper we provide a simple model to account
for an important political and sociological phenomenon, the ability of indi-
viduals to make use of information derived from the choice preferences of
reference groups with which they do or do not identify. In particular, we shall
model the likelihood that individuals can, by using the preferences of reference
groups in their environment as sources of information, choose an outcome that
is in their own best interest. We present results for the unidimensional case. For
this situation, optimal behavior by voters is shown to arise from following the
cue presented by their most favored group.

Three previous models have been presented to explain how voters will choose
reference cues:

Calvert (1985) presents a model which argues biased cues (those which favor
one or the other candidate) are more useful than neutral cues. Biased cues have
more value because they are more likely to provide information which will
change voters' minds.

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McKelvey and Ordeshook (1984, 1985a, b, 1986) describe a process by which voters use societal preferences to determine their own preferences. For the process to work (in a single dimension) each voter is assumed to know (1) which candidate is further to the left, (2) poll results which characterize the overall preferences of society on the candidates and the issue dimension, and (3) where the voter stands on the issue dimension relative to all other voters. From this information, the voter uses societal preferences to "triangulate" the midpoint between the candidates to ascertain for which candidate to vote. In two-dimensional space, voters must locate bisecting hyperplanes (lines) by a process of sequential triangulation.

Miller (1986) argues that, just as Condorcet's jury theorem (Condorcet, 1785; Black, 1958; Grofman, 1975; Grofman, Owen, and Feld, 1983; Grofman and Feld, 1988) suggests that when more people make a decision they are more likely to make the "correct" decision, a voter who samples more cues is more likely to make the correct voting decision. The correct voting decision for an individual is that which he would have obtained if he was perfectly informed. Also relevant is the literature on the use of cues by decision makers (especially legislators) with cues taken from fellow decision makers (see, e.g., Kingdon, 1973; Matthews and Stimson, 1975).

Like Calvert (1985), we shall consider cues derived simultaneously from multiple sources rather than focusing exclusively on choice between competing sources. Unlike McKelvey and Ordeshook (1984, 1985a, b, 1986), we shall not require voters to know poll results but, similar to them, we assume that voters can evaluate the spatial location of information sources and can know which candidate is furthest to the right. Unlike Miller (1986; cf. Grofman, Owen, and Feld, 1983), we shall not deal (except in passing) with the question of whether the group decision is likely to be the same as the one that would have been made by perfectly informed individuals.

The model we propose has a variety of applications including choices by legislators between a bill and the status quo as a function of who sponsors the bill or which (interest) groups are known to favor or oppose it, choices between candidates by a mass electorate, and choices by voters about initiatives and referenda (especially in those states, such as California, where key proponents and opponents of a measure may be identified to voters because they are signatories of statements in a "voter's handbook").

2. Information sources arrayed on a single line

We consider the case of two sources of cues each with known locations on a unidimensional continuum. Assume there are two candidates (choices) (A and B) whose locations on this continuum can also in principle be specified, but